

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOHN STIPPICK

Appeal No. 1998-2242
Application No. 08/430,937

ON BRIEF

Before PATE, GONZALES, and BAHR, Administrative Patent Judges.
PATE, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 3 through 6, 10 and 12 through 18. These are the only claims remaining in the application.

The claimed invention is directed to a method for supporting a tray in a mass or heat transfer apparatus such as

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a distillation or flash column at an oil refinery.

Claim 15, reproduced below, is further illustrative of the claimed subject matter.

15. A method of providing support to a tray comprised of one or more tray panels, said method comprising providing each said tray panel with equidistantly spaced stiffeners located perpendicular to and connected to the bottom surface of said tray panel and positioned in a manner that said stiffeners cooperate to form a continuous and orthogonal grill under said tray.

The references listed below have been relied upon by the examiner to support rejections under sections 102 and 103:

Kohn 1953	2,664,280	Dec. 29,
Thrift	3,056,592	Oct. 2, 1962
DiNicolantonio et al. (DiNicolantonio)	4,133,852	Jan. 9, 1979
Matsumoto et al. (Matsumoto)	5,431,366	Jul. 11, 1995 (filed Apr. 28, 1994)

The admitted prior art as set forth on pages 5 through 6 of the instant specification and Figure 2.

THE REJECTIONS

Claim 4 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which appellant regards as the invention.

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Claims 3 through 6, 10 and 12 through 18 stand rejected under 35 U.S.C. § 102(b) as anticipated by DiNicolantonio.

The examiner states this rejection thusly:

DiNicolantonio et al. who teach a method (see Fig. 3 paragraph bridging columns 3 and 4) for providing support for a gas-liquid mass transfer contact tray wherein the tray comprises at least one or more tray panels (40,42), said method comprising a step of providing for each of said tray panels with a plurality of equidistantly spaced stiffeners (50) wherein the stiffeners (50) in each tray panel are located perpendicular to and connected to the bottom surface of the tray panel, and wherein the stiffeners in each tray panel are further positioned to define a continuous and orthogonal grill under each said tray panel or the tray. It is further clear that the tray of DiNicolantonio et al. is perforated and circular, comprises a sealing ring (26) and does not have a support beam. [examiner's answer, page 6].

Claims 3 through 6, 10 and 12 through 18 stand rejected under 35 U.S.C. § 103 as unpatentable over DiNicolantonio or Thrift taken with admitted prior art found on pages 5 and 6 and in Figure 2 of appellant's specification. The examiner's factual findings with respect to DiNicolantonio have been reproduced above. With respect to Thrift, the examiner states that Thrift teaches a method comprising a step of providing for each tray panel of a perforated tray of a gas liquid mass transfer column a plurality of stiffeners which reinforce the

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mass transfer tray without using conventional supporting beams. Thus, the examiner concludes that it would have been obvious to modify the prior art method disclosed on pages 5 and 6 and Figure 2 by providing for

one or more mass transfer tray panels a plurality of stiffeners, as taught by Thrift, without using additional support beams to support the contact tray.

Claims 3 through 6, 10 and 12 through 18 stand rejected under 35 U.S.C. § 103 as unpatentable over DiNicolantonio and Thrift and the admitted prior art, as in the previous rejection, further in view of either Matsumoto or Kohn. According to the examiner, Kohn teaches a method for supporting a contact tray by providing additional reinforcing stiffeners in the form of a continuous orthogonal grill. On the other hand, Matsumoto is said to provide a reinforcement grill of continuous orthogonal shape to provide support for a large panel. The examiner concludes that it would have been obvious to modify the admitted prior art with either DiNicolantonio or Thrift as discussed above, further in view

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of the orthogonal grill as taught by Matsumoto or Kohn.

OPINION

We have carefully reviewed the rejections on appeal in light of the arguments of the appellant and the examiner. As a result of this review, we have reached the conclusion that the applied prior art of DiNicolantonio establishes the lack of novelty of claims 3, 10, 12, 13, 15 and 16. This prior art reference does not anticipate claims 4, 5, 6, 14, 17 and 18. We also affirm the rejection of claim 4 under 35 U.S.C. § 112. We further have determined that the examiner has not established the prima facie obviousness of any of the appealed claims. Therefore, all rejections under 35 U.S.C. § 103 will be reversed. Our reasons follow.

With reference to DiNicolantonio, we agree with the examiner's finding of fact that DiNicolantonio discloses a tray comprised of at least one tray panel 40, which tray panel has beneath it an orthogonal grill of stiffeners. We further note that the "comprising" and "comprised" language, of claim 15 is open-ended. Thus, the tray of claim 15 can be

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considered as formed of one tray panel or a multitude of tray panels. Therefore, the tray of claim 15 could be merely the tray panel 40 disclosed in DiNicolantonio. Appellant argues in the reply brief that the only proper interpretation of the language of the appealed claim is that "a tray that was comprised of only one panel would have the tray panel comprise continuous orthogonal stiffeners which form the orthogonal grill under the entire tray." We agree. Inasmuch as the claim defines a tray as comprising one or more tray panels, the tray panel 40 of DiNicolantonio is considered a tray consistent with the language of the claim. Additionally, we must point out that the expression "a tray," comprised of only one panel is somewhat contradictory in that "comprised" is an open-ended expression. Furthermore, while it is true that a tray comprised of two panels would have each panel having their required stiffeners, claim 15 has a broader scope, in that a tray could be merely one panel. For this reason, we affirm the § 102 rejection of claims 3, 10, 12, 13, 15 and 16.

With respect to claim 4, we similarly affirm the 35 U.S.C.

§ 112 rejection of this claim, inasmuch as this claim has not

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been argued or treated by the appellant, in any way, in the appeal brief.

With respect to claims 4, 5 and 6, we do not affirm the anticipation rejection of these claims, inasmuch as DiNicolantonio does not show a ripple tray, the manway tray being circular, or having baffle means. With respect to claim 14, DiNicolantonio does not disclose a method wherein there are no supporting beams for any of the trays.¹

As to claims 17 and 18, DiNicolantonio does not disclose this claimed process of retrofitting existing process columns.

Therefore, the rejection of claims 17 and 18 under 35 U.S.C. § 102 is not sustained.

Turning to the obviousness rejections, whether based on DiNicolantonio and the admitted prior art in view of Thrift or based on DiNicolantonio, the admitted prior art, Thrift, Kohn and Matsumoto all taken together, we will not sustain these

¹We note that claim 14 refers to "said trays." However, only one tray has been positively recited previously in this claim's chain of dependency. This minor error should be corrected in any further prosecution before the examiner.

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rejections. In our view, there is no suggestion or motivation for combining the references of the applied prior art. In fact, it is only by picking and choosing features from all the prior art that the examiner can arrive at the claimed invention. In our view, this picking and choosing is clearly based on impermissible hindsight analysis of the claimed subject matter. Therefore, the obviousness rejections are not sustained.

SUMMARY

The rejection of claim 4 under 35 U.S.C. § 112 is affirmed. The rejection of claims 3, 10, 12, 13, 15 and 16 under 35 U.S.C. § 102 has been sustained.

The rejection of claims 4, 5, 6, 14, 17 and 18 under 35 U.S.C. § 102 has not been sustained.

Finally, the rejections of claims 3 through 6, 10 and 12 through 18 under 35 U.S.C. § 103 have not been sustained.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

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	William F. Pate)	
	Administrative Patent Judge)	
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